



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,119	05/01/2006	Robert Chassagnon	5460-69PUS	5029
27799 7590 06/13/2007 COHEN, PONTANI, LIEBERMAN & PAVANE 551 FIFTH AVENUE SUITE 1210 NEW YORK, NY 10176			EXAMINER SCOTT, ANGELA C	
			ART UNIT 1709	PAPER NUMBER
			MAIL DATE 06/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/578,119

Applicant(s)

CHASSAGNON ET AL.

Examiner

Angela C. Scott

Art Unit

1709

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 05/06 & 01/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Art Unit: 1709

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

Claim 12 is objected to because of the following informality. In claim 12, a typo exists in line 2. The word "trimester" has been interpreted for examination purposes to read --triester--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 1709

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 through 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandstrom et al. (US 2003/0089438) in view of Vasseur et al. (WO 02/088238). For convenience, the citations below are from an English language equivalent (US 2004/0127617) to Vasseur et al.

Sandstrom et al. recites a tire having a tire tread (§12) made of a rubber composition (§12) comprised of about 70 to about 100 phr (§13) of butyl rubber (§14), specifically a brominated butyl rubber (§15); a reinforcing inorganic filler (§35); a coupling agent (§35); and at least one diene-based elastomer (§17).

Regarding claims 1 through 5, 14, and 17, Sandstrom et al. does not teach adding a plasticizing agent of an unsaturated ($C_{12} - C_{22}$) fatty acid triester of glycerol to the rubber composition of the tire tread. However, Vasseur et al. teaches adding a plasticizing agent of glycerol fatty acid triesters comprised of oleic acid (§67) to a rubber composition for tire treads (§2). Sandstrom et al. and Vasseur et al. are combinable because they are from the same field of endeavor, namely, rubber compositions for tires. At the time of the invention, a person of ordinary skill in the art would have found it obvious to have added a plasticizing agent of glycerol fatty acid triesters comprised of oleic acid, as taught by Vasseur et al., to the rubber composition for tire treads as disclosed by Sandstrom et al., and would have been motivated to do so because Vasseur et al. suggests the grip performance of the tire tread is conserved over time when this type of plasticizing agent is used in the rubber composition of the tire tread (§40).

Art Unit: 1709

Regarding claims 6 through 10, Sandstrom et al. does not teach that the fatty acid of the glycerol triester (the plasticizing agent) is more than 50% by weight, preferably 80% by weight, oleic acid, or that the glycerol fatty acid triester is glycerol trioleate or sunflower oil. However, Vasseur et al. teaches that the fatty acids of the glycerol triester are comprised of oleic acid in a mass fraction equal to or greater than 70% (§67); more preferably, greater than or equal to 85% (§68). Additionally, Vasseur et al. teaches that the plasticizing agent can be glycerol trioleate (§69) or sunflower oil (§71). At the time of the invention, a person of ordinary skill in the art would have found it obvious to have the glycerol fatty acid triester be more than 50% by weight, preferably 80% by weight, oleic acid and for the glycerol fatty acid triester to be either glycerol trioleate or sunflower oil, as taught by Vasseur et al. in the rubber composition for tire treads disclosed by Sandstrom et al., and would have been motivated to do so because Vasseur et al. suggests the grip performance of the tire tread is conserved over time when this type of plasticizing agent is used in the rubber composition of the tire tread (§40).

Regarding claims 11 through 13, Sandstrom et al. does not teach that the amount of glycerol triester (the plasticizing agent) is between 5 and 80 phr, specifically between 10 and 50 phr, and more specifically, between 15 and 30 phr. However, Vasseur et al. teaches that the plasticizing agent is used in an amount from 10 to 40 phr. At the time of the invention, a person of ordinary skill in the art would have found it obvious to have used the plasticizing agent in the amount disclosed by Vasseur et al. in the rubber composition as disclosed by Sandstrom et al., and would have been motivated to do so because Vasseur et al. suggests the grip performance of the tire tread is conserved over time when this type of plasticizing agent is used in the rubber composition of the tire tread (§40).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vasseur (WO 03/066722) in view of Sandstrom et al. (US 2003/0089438) and Vasseur et al. (WO 02/088238). For convenience, the citations below are from English equivalents (US 2005/0043448 and US 2004/0127617) to Vasseur and Vasseur et al., respectively.

Regarding claim 15, Vasseur recites a process for preparing a tire tread (§23) comprising the steps of incorporating in a diene elastomer, in a mixer (§24), a reinforcing inorganic filler (§25) and a coupling agent (§26); thermomechanically kneading the entire mixture, in one or more stages, until a maximum temperature of between 130° C and 200° C is reached (§28); cooling the entire mixture to a temperature of less than 100° C (§29); adding a vulcanization system (cross-linking system) (§30, 31); kneading the entire mixture until a maximum temperature less than 120° C is reached (§32); and extruding or calendaring the rubber composition thus obtained, in the form of a tire tread (§33).

Vasseur does not teach that the diene elastomer comprises more than 30 phr of butyl rubber. However, Sandstrom et al. teaches using about 70 to about 100 phr of a butyl rubber in a composition for a tire tread (§12, 13). Vasseur and Sandstrom et al. are combinable because they are from the same field of endeavor, namely, rubber compositions for tire treads. At the time of the invention, a person of ordinary skill in the art would have found it obvious to have used the disclosed amount of butyl rubber, as taught by Sandstrom et al., in the process for making a tire tread disclosed by Vasseur, and would have been motivated to do so because Sandstrom et al. teaches that butyl rubbers are known to be used in tire treads (§9).

Art Unit: 1709

Additionally, Vasseur does not teach adding a plasticizing agent comprising an unsaturated (C12-C22) fatty acid triester of glycerol to the mixture. However, Vasseur et al. teaches adding a glycerol fatty acid triester, namely oleic acid, to tire tread compositions as a plasticizing agent. Vasseur and Vasseur et al. are combinable because they are from the same field of endeavor, namely, rubber compositions for tire treads. At the time of the invention, a person of ordinary skill in the art would have found it obvious to have used a glycerol fatty acid triester, namely oleic acid, as a plasticizing agent in tire tread compositions, as taught by Vasseur et al. in the process for making tire treads as disclosed by Vasseur, and would have been motivated to do so because Vasseur et al. suggests the grip performance of the tire tread is conserved over time when this type of plasticizing agent is used in the rubber composition of the tire tread (§40).

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela C. Scott whose telephone number is (571) 274-3303. The examiner can normally be reached on Monday through Friday, 7:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1709

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ACS

June 7, 2007

**MARK EASHOO, PH.D**
PRIMARY EXAMINER

4/5/07